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SCALABLE and OPAL-RT Release Latest Technology

- Network Digital Twin for Cyber Test, Training and Analysis -

Culver City, CA (October 17, 2019) - SCALABLE Network Technologies, Inc. ([SCALABLE](#)) is pleased to announce the release of their latest high-fidelity network emulator, [EXata for Cyber-Physical Systems \(EXata CPS\)](#), which simulates the network communications of electrical grids. EXata CPS is integrated with OPAL-RT's [HYPERSIM](#) real-time simulator on the same hardware to offer a complete real-time cyber-physical solution for the development, testing, and assessment of electrical grids. HYPERSIM is the only real-time digital simulator with the power to simulate electromagnetic transients of large-scale power systems, tackling the operational and reliability issues which threaten a power system's cybersecurity. This integration of EXata CPS and HYPERSIM aims to meet the pressing need of Supervisor Control and Data Acquisition (SCADA) system operators working to ensure cybersecurity, reliability, and efficiency to mitigate risks.

EXata CPS leverages SCALABLE's EXata emulation software, used by planners, analysts, IT technicians, and communication specialists to create network digital twins of communication networks. These network digital twins use advanced simulation technology to offer a low-risk solution by creating an integrated model of the communication network and the physical system. They are able to replicate specific environments in a lab where multiple "what if" scenarios can be quickly evaluated to assess the impact of a wide variety of cyber threats on operations of the power system. Alternately, the network digital twin can be directly connected with live sensors and control units to provide a robust training capability for operators working to alleviate potential cyber threats to critical infrastructures.

"Our latest innovation with OPAL-RT will provide a complete solution for SCADA operators to protect and defend their systems using network digital twin capabilities," stated Dr. Rajive Bagrodia, SCALABLE CEO and Founder. "Simulating these cyber-physical systems in a lab is a cost-effective way to understand their vulnerabilities and develop defenses without compromising the real systems. We continue to work with our partners in developing innovative cybersecurity solution using our EXata emulation software."

“We are proud to partner with SCALABLE to deliver an innovative cybersecurity simulation and testing solution to help improve grid efficiency, stability, and reliability. By combining OPAL-RT’s longstanding expertise in real-time simulation and SCALABLE’s EXata Cyber-Physical System simulation capabilities, our users are now well-equipped to study the impacts and challenges of cyber incidents on their grids,” said Jean Bélanger, CEO & CTO, OPAL-RT TECHNOLOGIES. “EXata CPS is integrated with our platforms to offer a complete real-time cyber-physical solution for the development, testing, and assessment of electrical grids with communication networks.”

About SCALABLE Network Technologies

SCALABLE Network Technologies is the leading provider of live/virtual/constructive communications/networking modeling and simulation tools across all domains (undersea-to-space). We deliver virtualization technology for development, analysis, evaluation, and training to military, governmental, commercial, and academic institutions. Our high fidelity, real-time simulation platform incorporates physics-based models of military and commercial satellite, tactical, acoustic and optical networks along with emulation interfaces for live/virtual/constructive integration. Our cyber behavior models provide a vulnerability analysis framework with configurable cyber attack and defense models for IP networks, weapon systems, as well as cyber-physical networks. SCALABLE’s solutions are used by our customers to assess the performance and cyber resiliency of networked communications environments, and support system lifecycle management and operator training.

More information on the company is available at scalable-networks.com.

About OPAL-RT

OPAL-RT TECHNOLOGIES is the world leader in the development of PC/FPGA-based real-time simulators, Hardware-in-the-Loop (HIL) testing equipment and Rapid Control Prototyping (RCP) systems to design, test and optimize control and protection systems used in power grids, power electronics, motor drives, automotive, trains, aircraft and various industries, as well as R&D centers and universities.

More information on the company is available at <https://www.opal-rt.com/>.

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